# Oxidative Stress Markers in Heart Failure II

**Status:** Recruiting

## Eligibility Criteria

**Age:** 18 years and over

This study is also accepting healthy

**Healthy Volunteers:** volunteers

**Inclusion Criteria:**

1. Looking for both healthy and diastolic dysfunction participants who have had an echo in the past 6 months 2. Age greater than or equal to 18 years 3. Transthoracic echocardiogram within 1 year prior to enrollment containing tissue Doppler, mitral inflow velocities, left ventricular ejection fraction and left ventricular end-diastolic volume index data 4. Able to provide written consent 5. Healthy patients with an E/e' ratio < 15 6. Patients with asymptomatic diastolic dysfunction with an E/e' ratio > 15 7. Able to give a blood sample 8. EF greater than or equal to 50%

**Exclusion Criteria:**

1. EF<50% 2. Any regional wall motion defects, any valvular heart disease with greater than a mild stenosis or regurgitation, any congenital or other significant structural heart disease, 3. Patients undergoing cancer treatment 4. Patients with an anticipated life expectancy less than 18 months. 5. Age < 75 years 6. Previous hospital admission for acute heart failure 7. History of NYHA Class II, III or IV functional status 8. The need for loop diuretics specifically for heart failure at any time. 9. History of congestive heart failure. 10. History of coronary artery disease. 11. History of myocardial infarction. 12. Significant structural heart disease 13. Evidence of infiltrative cardiac disease 14. Atrial fibrillation (AF) within 6 weeks 15. Rhythm other than sinus at enrollment 16. Patient with a pacemaker 17. Cardiogenic shock 18. History of heart transplant or left ventricular assist device 19. Hemodialysis or peritoneal dialysis 20. Active infection including bacteremia 21. Major trauma or surgery within 6 weeks 22. Collagen vascular disease if on active treatment including steroids and other immunomodulating drugs 23. Systemic steroid use within 6 week.

## Conditions & Interventions

**Conditions:**

Heart & Vascular

**Keywords:**

cardiac diastolic dysfunction (DD), Clinics and Surgery Center (CSC), cMyBP-C, Heart failure, HFpEF

## More Information

**Description:** This study sets out to validate a simple, inexpensive blood test to identify Diastolic dysfunction (DD). Currently, diagnosis depends on costly, time-consuming imaging procedures that are only undertaken after symptoms develop. We have shown in the heart tissues of DD animals (mice and monkeys) and humans that S-glutathionylated cardiac myosin binding protein C (cMyBP-C) is likely responsible for reduced relaxation in DD and is elevated in the blood of each species when DD is present. Specific to the heart, cMyBP-C has been developed as a blood test to predict myocardial infarction. We hypothesize that modified S-glutathionylated cMyBP-C will be a blood marker for DD. We propose to do a non-interventional human clinical study to validate our animal and preliminary human data.

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